

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P249490

Luminaire Tested: **LSR8B90D010 EC8B90950 8LBDW0B**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249490
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13957)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B90D010 EC8B90950 8LBDW0B
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 5000 CCT WITH SPECULAR BLACK TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7801.0 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

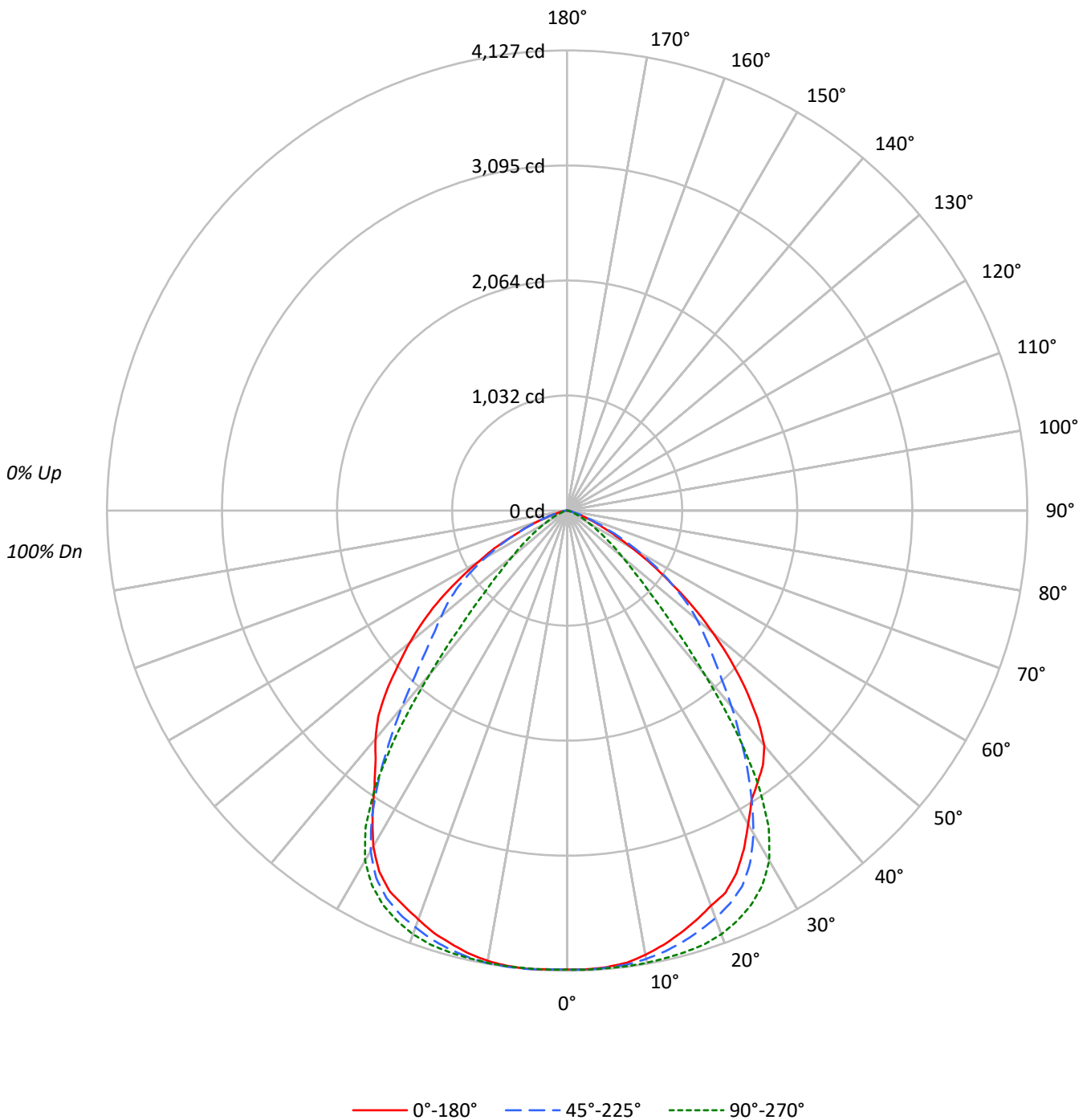
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90					90			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79					79			
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70					70			
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62					62			
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55					55			
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50					50			
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45					45			
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41					41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	126922	126922	126922
5°	127200	127543	127679
10°	126666	128949	128395
15°	125261	130835	128367
20°	123756	132672	128036
25°	122150	132827	128165
30°	115562	129092	123822
35°	112112	112195	113358
40°	110723	77195	107611
45°	98657	46343	100009
50°	82033	30842	88395
55°	61525	21263	74949
60°	41697	14166	56548
65°	25151	9194	38847
70°	13948	4977	23901
75°	6315	2109	12367
80°	5487	2344	8630
85°	6262	3114	8598



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	392.8	5.0
10°-20°	1140.8	14.6
20°-30°	1731.5	22.2
30°-40°	1818.6	23.3
40°-50°	1363.4	17.5
50°-60°	874.8	11.2
60°-70°	374.2	4.8
70°-80°	88.4	1.1
80°-90°	16.4	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	3265.1	41.9
0°-40°	5083.6	65.2
0°-60°	7321.9	93.9
0°-90°	7801.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7801.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4116	4116	4116	4116	4116	
5°	4109	4116	4120	4127	4125	390
15°	3924	4006	4098	4072	4021	1107
25°	3590	3716	3904	3833	3767	1640
35°	2978	2812	2980	2945	3011	1869
45°	2262	1849	1063	1796	2293	1733
55°	1144	1144	396	1193	1394	1038
65°	345	406	126	524	532	368
75°	53	62	18	106	104	77
85°	18	11	9	18	24	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0
2.5°	4118.2	4122.6	4120.4	4120.4	4118.2	4120.4	4120.4	4124.8	4124.8	4120.4	4118.2
5°	4109.3	4113.7	4113.7	4109.3	4109.3	4120.4	4113.7	4118.2	4118.2	4116.0	4116.0
7.5°	4089.5	4089.5	4098.3	4091.7	4091.7	4098.3	4096.1	4100.5	4104.9	4107.1	4107.1
10°	4045.3	4049.7	4051.9	4051.9	4054.1	4060.7	4065.1	4074.0	4078.4	4082.8	4085.0
12.5°	3990.1	3996.7	3998.9	3996.7	4003.3	4012.1	4023.2	4034.2	4040.9	4049.7	4056.3
15°	3923.7	3923.7	3928.2	3934.8	3939.2	3952.5	3963.5	3976.8	3994.4	4005.5	4016.5
17.5°	3850.9	3855.3	3861.9	3861.9	3870.8	3892.8	3899.5	3919.3	3939.2	3950.3	3972.4
20°	3771.3	3775.7	3782.4	3786.8	3797.8	3815.5	3828.7	3846.4	3868.5	3888.4	3910.5
22.5°	3709.4	3700.6	3705.0	3709.4	3720.5	3736.0	3751.4	3773.5	3795.6	3815.5	3837.6
25°	3590.1	3592.4	3599.0	3603.4	3616.7	3629.9	3647.6	3674.1	3694.0	3716.1	3740.4
27.5°	3428.9	3431.1	3442.1	3442.1	3453.2	3475.3	3486.3	3508.4	3534.9	3557.0	3585.8
30°	3245.5	3249.9	3249.9	3258.8	3265.4	3276.4	3287.5	3309.6	3322.8	3342.7	3382.5
32.5°	3077.6	3082.0	3079.8	3077.6	3071.0	3068.7	3066.5	3071.0	3075.4	3082.0	3097.4
35°	2978.2	2967.1	2958.3	2942.8	2925.2	2903.1	2883.2	2856.7	2832.3	2812.4	2790.4
37.5°	2883.2	2880.9	2867.7	2845.6	2810.2	2770.5	2724.1	2666.7	2609.2	2547.3	2487.7
40°	2750.6	2744.0	2732.9	2702.0	2662.2	2613.6	2551.8	2481.1	2388.3	2293.3	2196.1
42.5°	2525.2	2527.5	2514.2	2489.9	2452.4	2405.9	2341.9	2264.6	2165.2	2052.4	1926.5
45°	2262.3	2262.3	2257.9	2238.0	2211.5	2174.0	2125.4	2061.3	1964.1	1849.2	1714.4
47.5°	1988.4	1990.6	1983.9	1979.6	1968.5	1944.2	1908.9	1860.3	1791.8	1681.3	1546.5
50°	1710.0	1710.0	1721.1	1718.8	1718.8	1710.0	1694.6	1665.8	1606.2	1517.8	1391.9
52.5°	1431.6	1436.1	1442.7	1451.5	1462.6	1480.2	1462.6	1449.3	1411.7	1343.2	1235.0
55°	1144.4	1148.9	1159.9	1175.3	1188.6	1206.3	1210.7	1210.7	1190.8	1144.4	1062.7
57.5°	899.2	892.6	901.4	914.7	932.3	950.0	963.3	978.7	976.5	945.6	879.3
60°	676.1	678.3	684.9	698.2	711.4	726.9	744.5	757.8	764.4	749.0	707.0
62.5°	492.7	492.7	501.5	514.7	521.4	543.5	554.5	561.2	567.8	565.6	539.1
65°	344.7	349.1	353.5	360.1	366.7	380.0	386.6	399.9	404.3	406.5	386.6
67.5°	243.0	236.4	240.8	245.2	251.9	260.7	274.0	274.0	280.6	280.6	267.3
70°	154.7	154.7	156.9	163.5	167.9	170.1	174.6	178.9	185.6	183.4	183.4
72.5°	103.8	101.6	103.8	106.1	108.3	114.9	114.9	117.1	121.5	123.7	114.9
75°	53.0	55.2	59.6	57.5	64.1	59.6	61.8	68.5	66.3	61.8	61.8
77.5°	44.2	44.2	44.2	42.0	46.4	46.4	44.2	48.6	46.4	46.4	44.2
80°	30.9	33.1	30.9	28.7	30.9	28.7	28.7	28.7	28.7	28.7	26.5
82.5°	24.3	19.9	22.1	19.9	22.1	22.1	19.9	17.7	17.7	19.9	17.7
85°	17.7	13.2	15.5	15.5	13.2	13.2	13.2	13.2	13.2	11.0	11.0
87.5°	11.0	6.6	6.6	6.6	8.8	8.8	8.8	6.6	8.8	8.8	4.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0
2.5°	4122.6	4120.4	4124.8	4122.6	4122.6	4120.4	4122.6	4120.4	4124.8	4116.0	4118.2
5°	4122.6	4118.2	4120.4	4122.6	4124.8	4120.4	4120.4	4120.4	4124.8	4120.4	4122.6
7.5°	4113.7	4111.5	4118.2	4122.6	4120.4	4118.2	4122.6	4120.4	4124.8	4122.6	4127.0
10°	4096.1	4098.3	4102.7	4109.3	4111.5	4113.7	4118.2	4118.2	4124.8	4116.0	4120.4
12.5°	4069.6	4078.4	4089.5	4093.9	4102.7	4102.7	4107.1	4109.3	4113.7	4111.5	4118.2
15°	4036.4	4047.5	4060.7	4071.8	4082.8	4089.5	4096.1	4098.3	4104.9	4098.3	4100.5
17.5°	3996.7	4009.9	4029.8	4043.0	4060.7	4067.4	4076.2	4080.6	4087.3	4082.8	4085.0
20°	3941.4	3956.9	3979.0	3998.9	4009.9	4025.4	4036.4	4043.0	4047.5	4043.0	4045.3
22.5°	3864.1	3886.2	3914.9	3930.4	3952.5	3965.7	3967.9	3983.4	3994.4	3983.4	3987.8
25°	3773.5	3795.6	3817.7	3850.9	3870.8	3886.2	3901.7	3903.9	3914.9	3912.7	3910.5
27.5°	3623.3	3652.0	3689.5	3716.1	3742.6	3766.9	3784.6	3789.0	3800.0	3795.6	3797.8
30°	3417.8	3448.8	3484.1	3526.1	3563.6	3587.9	3610.0	3625.5	3636.5	3629.9	3627.7
32.5°	3126.2	3157.1	3194.7	3236.6	3280.9	3316.2	3342.7	3362.6	3375.8	3371.4	3360.4
35°	2792.6	2801.4	2825.7	2858.9	2896.4	2934.0	2958.3	2980.4	2995.8	3000.2	3000.2
37.5°	2450.1	2421.4	2403.8	2403.8	2425.8	2441.3	2463.4	2476.6	2501.0	2509.8	2516.4
40°	2118.7	2052.4	1990.6	1944.2	1913.3	1911.1	1911.1	1917.7	1939.8	1968.5	1995.0
42.5°	1822.7	1716.6	1621.6	1535.5	1473.6	1438.3	1422.8	1425.0	1442.7	1469.2	1513.4
45°	1586.3	1453.7	1334.4	1230.6	1146.6	1091.4	1064.9	1062.7	1075.9	1106.8	1155.5
47.5°	1402.9	1261.5	1126.7	1007.4	916.9	857.2	826.3	817.5	826.3	855.0	912.5
50°	1250.5	1104.7	965.5	841.7	744.5	682.7	653.9	642.9	653.9	678.3	735.7
52.5°	1109.1	958.8	828.5	709.2	605.3	552.3	521.4	514.7	521.4	550.1	596.5
55°	945.6	817.5	689.3	570.0	479.4	426.4	402.1	395.5	402.1	428.6	477.2
57.5°	784.3	673.8	561.2	452.9	375.6	329.2	307.1	298.2	313.7	331.4	388.8
60°	634.1	545.7	450.7	355.7	291.6	249.6	232.0	229.7	234.2	256.3	296.0
62.5°	497.1	424.2	349.1	271.8	218.7	201.0	178.9	176.8	181.2	194.4	225.4
65°	357.9	311.5	254.1	198.8	156.9	132.6	123.7	126.0	130.3	139.2	167.9
67.5°	249.6	216.5	176.8	139.2	108.3	97.2	88.4	86.2	88.4	103.8	119.3
70°	167.9	148.0	119.3	106.1	75.1	59.6	61.8	55.2	64.1	64.1	77.3
72.5°	110.4	97.2	79.5	61.8	53.0	42.0	42.0	39.8	44.2	46.4	57.5
75°	57.5	44.2	44.2	30.9	22.1	11.0	19.9	17.7	15.5	17.7	22.1
77.5°	39.8	33.1	30.9	24.3	22.1	17.7	17.7	17.7	17.7	19.9	22.1
80°	24.3	24.3	17.7	15.5	13.2	11.0	13.2	13.2	13.2	13.2	15.5
82.5°	15.5	13.2	13.2	11.0	11.0	8.8	8.8	8.8	8.8	8.8	13.2
85°	13.2	8.8	8.8	6.6	8.8	15.5	6.6	8.8	8.8	8.8	6.6
87.5°	4.4	6.6	6.6	6.6	4.4	2.2	4.4	6.6	6.6	11.0	8.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0	4116.0
2.5°	4122.6	4124.8	4124.8	4122.6	4122.6	4118.2	4127.0	4120.4	4122.6	4131.4	4124.8
5°	4127.0	4129.2	4129.2	4127.0	4127.0	4127.0	4129.2	4129.2	4127.0	4124.8	4129.2
7.5°	4135.9	4133.6	4133.6	4129.2	4129.2	4124.8	4129.2	4122.6	4127.0	4122.6	4129.2
10°	4124.8	4127.0	4124.8	4122.6	4122.6	4120.4	4120.4	4113.7	4116.0	4109.3	4113.7
12.5°	4118.2	4116.0	4116.0	4111.5	4107.1	4102.7	4100.5	4093.9	4093.9	4078.4	4085.0
15°	4100.5	4102.7	4096.1	4087.3	4082.8	4071.8	4067.4	4058.5	4049.7	4038.7	4040.9
17.5°	4085.0	4078.4	4069.6	4060.7	4043.0	4034.2	4025.4	4012.1	4007.7	3994.4	3990.1
20°	4038.7	4034.2	4023.2	4007.7	3996.7	3976.8	3967.9	3954.7	3943.6	3930.4	3923.7
22.5°	3979.0	3974.5	3961.3	3945.8	3928.2	3919.3	3910.5	3886.2	3875.1	3861.9	3859.7
25°	3903.9	3897.2	3884.0	3866.3	3857.5	3833.2	3824.3	3806.6	3802.3	3789.0	3786.8
27.5°	3789.0	3780.1	3764.7	3742.6	3727.1	3711.7	3702.8	3689.5	3685.2	3671.9	3669.7
30°	3616.7	3605.6	3574.7	3565.9	3539.3	3523.9	3523.9	3506.2	3508.4	3499.6	3499.6
32.5°	3344.9	3327.2	3302.9	3285.2	3267.6	3258.8	3258.8	3252.1	3256.5	3256.5	3261.0
35°	2984.8	2960.5	2947.2	2936.2	2936.2	2945.0	2971.5	2978.2	2991.4	3002.5	3011.3
37.5°	2523.0	2520.9	2536.3	2549.6	2582.7	2620.3	2666.7	2706.4	2744.0	2770.5	2797.0
40°	2023.7	2079.0	2123.1	2185.0	2235.8	2308.7	2392.7	2461.2	2525.2	2571.7	2620.3
42.5°	1579.6	1650.4	1743.2	1833.7	1924.3	2023.7	2134.2	2229.2	2313.2	2377.2	2428.0
45°	1230.6	1327.8	1440.5	1555.4	1672.5	1796.2	1911.1	2008.3	2096.7	2162.9	2213.7
47.5°	992.0	1098.0	1226.2	1352.1	1484.7	1615.0	1743.2	1827.1	1900.0	1953.0	1999.5
50°	819.6	932.3	1067.1	1210.7	1343.2	1473.6	1584.1	1665.8	1725.5	1771.9	1800.6
52.5°	684.9	804.2	947.8	1091.4	1223.9	1343.2	1442.7	1504.6	1553.2	1586.3	1612.8
55°	565.6	680.5	815.3	950.0	1080.4	1193.0	1274.8	1321.2	1358.7	1378.6	1394.1
57.5°	461.8	567.8	691.5	815.3	927.9	1020.7	1084.8	1131.2	1148.9	1164.3	1162.1
60°	362.4	461.8	574.4	680.5	777.7	852.8	899.2	925.7	938.9	945.6	941.2
62.5°	285.0	375.6	461.8	554.5	625.2	689.3	733.5	733.5	740.1	742.3	749.0
65°	212.1	280.6	355.7	424.2	481.6	523.6	547.9	554.5	563.4	561.2	556.7
67.5°	156.9	207.7	262.9	313.7	353.5	380.0	397.7	413.2	411.0	406.5	404.3
70°	108.3	141.4	190.0	220.9	249.6	276.2	280.6	282.8	285.0	287.2	282.8
72.5°	75.1	99.4	126.0	152.4	170.1	181.2	192.2	194.4	194.4	194.4	192.2
75°	37.6	50.8	75.1	86.2	101.6	106.1	114.9	114.9	121.5	112.7	110.4
77.5°	33.1	39.8	53.0	61.8	68.5	75.1	77.3	84.0	81.7	77.3	79.5
80°	19.9	24.3	33.1	37.6	46.4	48.6	50.8	53.0	50.8	53.0	53.0
82.5°	15.5	17.7	22.1	22.1	28.7	28.7	30.9	30.9	33.1	33.1	33.1
85°	8.8	15.5	13.2	26.5	17.7	17.7	22.1	26.5	22.1	22.1	26.5
87.5°	8.8	8.8	6.6	8.8	8.8	8.8	11.0	13.2	13.2	15.5	13.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P249490

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBDW0B

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4116.0	4116.0	4116.0	4116.0
2.5°	4122.6	4127.0	4120.4	4118.2
5°	4129.2	4129.2	4124.8	4124.8
7.5°	4129.2	4129.2	4122.6	4118.2
10°	4111.5	4111.5	4104.9	4100.5
12.5°	4078.4	4078.4	4076.2	4069.6
15°	4036.4	4036.4	4027.6	4021.0
17.5°	3979.0	3983.4	3972.4	3972.4
20°	3917.1	3914.9	3906.1	3901.7
22.5°	3853.1	3848.6	3846.4	3833.2
25°	3784.6	3780.1	3773.5	3766.9
27.5°	3667.5	3665.3	3658.6	3649.8
30°	3488.5	3486.3	3477.5	3477.5
32.5°	3256.5	3254.3	3245.5	3247.7
35°	3015.7	3024.6	3020.1	3011.3
37.5°	2814.7	2821.3	2825.7	2821.3
40°	2646.8	2666.7	2668.9	2673.3
42.5°	2467.8	2494.3	2503.2	2507.6
45°	2253.5	2277.8	2297.7	2293.3
47.5°	2034.8	2052.4	2070.1	2056.9
50°	1824.9	1835.9	1842.6	1842.6
52.5°	1626.1	1626.1	1623.9	1626.1
55°	1398.5	1398.5	1389.7	1394.1
57.5°	1159.9	1164.3	1157.7	1146.6
60°	938.9	927.9	923.5	916.9
62.5°	731.3	731.3	715.8	735.7
65°	547.9	541.3	534.6	532.4
67.5°	397.7	395.5	388.8	386.6
70°	280.6	271.8	269.5	265.1
72.5°	187.8	187.8	183.4	183.4
75°	114.9	103.8	101.6	103.8
77.5°	79.5	77.3	77.3	75.1
80°	53.0	50.8	55.2	48.6
82.5°	33.1	35.4	33.1	35.4
85°	22.1	26.5	24.3	24.3
87.5°	13.2	13.2	13.2	13.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)